

REMARKS/ARGUMENTS

This is in response to the Office Action dated March 7, 2008. Claims 1-13 are pending. Claims 1-13 stand rejected in the outstanding Office Action. Claims 1, 12-13 have been amended.

Applicant thanks the Examiner for the consideration of the Information Disclosure Statement (IDS) filed September 29, 2004. However, one entry in the above IDS, e.g., the International Preliminary Examination Report mailed January 22, 2004 (corresponding to PCT Application No. PCT/JP03/008509) was not initialed by the Examiner. It is respectfully requested that the Examiner please cite this reference and appropriately initial the PTO-1449 form filed March 14, 2008.

Applicant respectfully requests the Examiner to acknowledge Applicant's claim for foreign priority and receipt of the certified priority document. According to the USPTO PAIR system, a certified copy of Applicant's priority document (JP 2002-202960) has been successfully received by the PTO, and acknowledgment of same is requested. That is, Applicant requests an indication that "All" certified copies of priority documents have been received and boxes 12, 12(a) and 12(a)(3) in form PTOL-90A be checked.

The rejection of independent claim 1 as allegedly being anticipated under 35 U.S.C. § 102(e) by Hong et al. (US 6,674,495) is respectfully traversed. Hong fails to disclose or even remotely suggest each and every limitation set forth in the claims. Anticipation requires that "each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference", *Verdegaal Bro. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987) (MPEP § 2131).

Amended claim 1 now recites “wherein photoexcitation carriers are generated in the gap formed between the source and drain electrodes and the superimposition areas of both the source and drain electrodes”. Support for the amendment can be found in page 16, line 24 to page 17, line 1 of the originally filed specification. Hong fails to teach or suggest this limitation.

Hong generally discloses a TFT array panel for an LCD device (Fig. 23). In one embodiment, a TFT (Fig. 24) comprises a substrate 10, a gate electrode 56, a gate insulation film 60 provided on the gate electrode, a semiconductor layer 70 laminated on the gate insulation film, contact layer 85, 86, source electrode 111 and drain electrode 113 formed on the semiconductor film 70. Each of the source and gate electrodes includes a section that is superimposed on the gate electrode 13. The source and gate electrodes, including the sections superimposed on the gate electrode comprise a transparent material such as ITO (lines 10-28, col. 20).

With the amendment to claim 1, it is made clear that the phototransistor is such that “photoexcitation carriers are generated in the gap formed between the source and drain electrodes and the superimposition areas of both the source and drain electrodes”. In contrast, the TFT disclosed by Hong is not a phototransistor, lacking photoexcitation carriers generated by light irradiation. Hong’s transistor is a conventional TFT device used in LCD arrays.

According to an example embodiment of the claimed device, photoexcitation carriers are generated in both the channel section (formed between the source electrode and the drain electrode) and the superimposition area (of both the source and drain electrodes). Thus, “the area for generating the photoexcitation carrier can be widened”, see page 16, line 24 to page 17, line 1 of the originally filed specification. As a result of this widening, the photosensitivity (I_p/I_d), defined as the ratio of photo-current (I_p) and dark current (I_d) can be increased.

Furthermore, there is no need for complicated wiring and the existing manufacturing process of the thin film transistor can be used without change, se page 7, lines 12-20 of the originally filed specification.

Kobayashi, cited for disclosing a selector switching transistor in reference to claims 5 and 6, also fails to disclose the missing limitation. The limitation of “the superimposition area including at least one portion having translucency, wherein photoexcitation carriers are generated in the gap formed between the source and drain electrodes and the superimposition areas of both the source and drain electrodes” is neither disclosed or suggested in Hong or Kobayashi.

For the above reasons, claim 1 is allowable.

It is respectfully requested that the rejection of dependent claims 2-13, all dependent from independent claim 1, be also withdrawn.

In view of the foregoing and other considerations, all claims are deemed in condition for allowance. A formal indication of allowability is earnestly solicited.

The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application.

IZUMI
Appl. No. 10/509,629
June 4, 2008

Should the Examiner feel that an interview with the undersigned would facilitate allowance of this application, the Examiner is encouraged to contact the undersigned.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: /Leonidas Boutsikaris/
Leonidas Boutsikaris, Ph.D.
Reg. No. 61,377

LB:tlm
901 North Glebe Road, 11th Floor
Arlington, VA 22203-1808
Telephone: (703) 816-4000
Facsimile: (703) 816-4100